
Sequence Listing was accepted.

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Reviewer: Saleem, Syed (ASRC)

Timestamp: [year=2010; month=6; day=28; hr=10; min=55; sec=34; ms=992;]

Validated By CRFValidator v 1.0.3

Application No: 10595909 Version No: 1.0

Input Set:

Output Set:

Started: 2010-06-18 21:49:07.495

Finished: 2010-06-18 21:49:13.399

Elapsed: 0 hr(s) 0 min(s) 5 sec(s) 904 ms

Total Warnings: 123

Total Errors: 0

No. of SeqIDs Defined: 123

Actual SeqID Count: 123

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Input Set:

Output Set:

Started: 2010-06-18 21:49:07.495

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Elapsed: 0 hr(s) 0 min(s) 5 sec(s) 904 ms

Total Warnings: 123

Total Errors: 0

No. of SeqIDs Defined: 123

Actual SeqID Count: 123

Error code Error Description

This error has occured more than 20 times, will not be displayed

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                                            30
Thr Gln Asn Glu Met Ser Asp Ala Ser Thr Lys Asp Ile Thr Pro Lys
    35 40 45
Ser Ile Glu Asp Phe Phe Glu Glu Phe Ala Asp Asn Phe Gly Ile Glu
  50
       55
Tyr Gly Ile Thr Lys Asp Gly Lys Thr Phe Tyr Thr Gly Lys Ser Thr
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Val Ala Val Asn Asp Thr Asp Pro Gln Phe Ala Gln Ala Leu Gln Asn
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            85
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Ala Tyr Gln Lys Ala Met Leu Asn Leu Gln Ser Glu Phe Ile Arg Asp

105

110

Ala	Phe	Gly 115	Arg	Ile	Ala	Thr	Ser 120	Lys	Ile	Gln	Asn	Tyr 125	Glu	Ala	Asp
Asn	Ser 130	Thr	Asn	Ala	Lys	Glu 135	Phe	Asp	Glu	Leu	Pro 140	Lys	Gly	Asp	Lys
Val 145	Asp	Gln	Ile	Leu	Asn 150	Lys	Leu	Thr	Gln	Leu 155	Ala	Gly	Ala	Gln	Leu 160
Asp	Lys	Ala	Leu	Lys 165	Asp	Leu	Gly	Ile	Asp 170	Thr	Asn	Ser	Leu	Ser 175	Glu
Asp	Arg	Lys	Lys 180	Thr	Leu	Leu	Lys	Gln 185	Glu	Phe	Leu	Asn	Lys 190	Thr	Met
Thr	Asn	Ala 195	Ile	Gly	Ser	Met	Ser 200	Gly	Leu	Val	Pro	Val 205	Gln	Thr	Ile
Val	Thr 210	Gln	Arg	Arg	Gly	Glu 215	Tyr	Asp	Val	Gly	Val 220	Val	Ala	Val	Ile
Ser 225	Asn	Lys	Thr	Arg	Gln 230	Leu	Ala	Lys	Asp	Met 235	Ala	Leu	Ala	Arg	Gln 240
Ser	Ala	Ile	Lys	Gly 245	Lys	Gly	Lys	Ala	Ile 250	Ser	Glu	Tyr	Leu	Pro 255	Lys
Asp	Thr	Lys	Gly 260	Phe	Leu	Asn	Glu	Tyr 265	Gly	Ile	Arg	Leu	Val 270	Tyr	Asp
Glu	Asn	Gly 275	Ala	Pro	Ile	Ile	Leu 280	Ser	Tyr	Gly	Asn	Trp 285	Gly	Tyr	Val
Ala	Asp 290	Pro	Ser	Asn	Ala	Lys 295	Lys	Thr	Asn	Ile	Leu 300	Glu	Asp	Arg	Ala
Lys 305	Glu	Thr	Ala	Leu	Thr 310	Met	Ala	Asp	Ala	Ala 315	Ile	Ile	Glu	Phe	Ile 320
Asn	Thr	Asn	Leu	Ser 325	Leu	Lys	Asp	Glu	Arg 330	Thr	Thr	Gly	Asp	Thr 335	Tyr

Glu Glu Ile Ile Lys Gln Ser Ile Asn Val Asn Asp Ser Ser Thr Gln 340 345 350
Glu Gln Thr Gln Asn Ile Thr Asn Ile Ile Asp Lys Val Asn Ser Lys 355 360 365
Ile Lys Ala Ser Ala Ser Gly Lys Ile Arg Gly Ile Arg Thr Leu Lys 370 375 380
Lys Trp Ser Tyr Thr Ser Glu Asn Gly Ile Glu His Val Gly Ala Val 385 390 395 400
Arg Phe Tyr Ser Tyr Glu Asn Leu Ala Asn Thr Asn Glu Ala Leu Asn 405 410 415
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Glu Asn Phe Phe Val Arg Asn Asn Gly Leu Pro Pro Ser Leu Glu Thr

85 90 95

Ile Lys Glu Arg Leu His Lys Gly Trp Thr Leu Glu Ile Asp Gly Glu 100 105 110 Ser Ile Ile Asn Lys Lys Ser Tyr Thr Ile Glu Asp Leu Lys Lys 115 120 Phe Lys Thr Tyr Thr Tyr Ala Leu Thr Val Glu Cys Gly Gly Asn Gly 130 135 140 Arg Ser Glu Val Ile Pro Ser Thr Lys Gly Thr Gln Trp Gly Tyr Gly 150 155 145 Ala Val Ala Cys Gly Arg Trp Thr Gly Val Arg Leu Lys Asp Ile Leu 165 170 175 Lys Asp Cys Gly Ile Lys Asn Asp Ala Val Tyr Ile Gly Tyr Tyr Gly 180 185 190 Ile Asp Thr Lys Leu Asn Gly Glu Glu Thr Ser Pro Ile Ser Arg Gly 195 200 205 Val Pro Ile Ser Lys Ala Leu Gln Asp Glu Thr Leu Ile Ala Trp Ala 215 220 210 Tyr Glu Gly Lys Asp Ile Pro Leu Val Asn Gly Tyr Pro Leu Arg Leu 240 230 235 225 Val Cys Gly Gly Tyr Pro Ala Ser Thr Ser Gly Lys Trp Leu Tyr Lys 245 250 255 Ile Ser Val Arg Asn Lys Ile His Asp Gly Glu Lys Met Glu Gly Ser 260 265 270 Tyr Lys Val Pro Val Asn Pro Val Lys Pro Gly Asp Phe Asn Tyr Lys 275 280 285 Gly Glu Met Lys Ile Ile Glu Ser Met Pro Ile Arg Ser Val Ile Thr 295 300

Asn Ile Lys Asn Gly Ser Glu Ile Lys Ala Asn Lys Lys Phe Glu Val

315

320

310

Arg Gly Lys Ala Trp Ala Gly Glu Leu Glu Val Ser Glu Val Tyr Val 325 330 Ser Asn Asp Tyr Gly Val Thr Trp Thr Lys Ala Lys Val Glu Lys Pro 340 345 350 Leu Asn Arg Leu Ala Trp Gln Lys Trp Ser Ala Gln Ile Ser Ile Pro 355 360 365 Thr Lys Gly Tyr Tyr Glu Ile Trp Ala Arq Ala Ile Asp Ser Gln Gly 370 375 380 Asn Ser Gln Pro Met Val Leu Ala Gln Trp Asn Pro Gly Gly Tyr Ile 385 390 395 Asn Asn Ala Cys His Arg Val Asn Val Tyr Gly Val 405 410 <210> 3 <211> 331 <212> PRT <213> Campylobacter jejuni (SEQ ID NO:3 - Cj0029) <400> 3 Met Lys Lys Ala Lys Ser Arg Ile Ala Ile Leu Gly Thr Gly Gly Thr 5 10 15 Ile Ala Gly Phe Ile Asp Ser Thr Ile Ala Thr Thr Gly Tyr Ala Ala 20 25 30 Gly Ala Ile Asp Ile Asp Val Leu Ile Lys Ala Val Pro Gln Ile Arg 35 40 45 Asp Leu Ala Asp Ile Ser Trp Glu Gln Ile Ala Asn Ile Asp Ser Ser 50 55 60 Asn Met Cys Asp Glu Ile Trp Leu Arg Leu Ala Lys Lys Ile Ala Lys

Leu Phe Ala Glu Gly Ile Asp Gly Val Val Ile Thr His Gly Thr Asp

90

Thr	Met	Glu	Glu 100	Thr	Ala	Tyr	Phe	Leu 105	Asn	Leu	Thr	Ile	Lys 110	Ser	Asp
Lys	Pro	Val 115	Val	Leu	Val	Gly	Ala 120	Met	Arg	Pro	Ser	Thr 125	Ala	Ile	Ser
Ala	Asp 130	Gly	Pro	Lys	Asn	Leu 135	Tyr	Asn	Ala	Val	Ala 140	Leu	Val	Val	Asn
Lys 145	Glu	Ala	Lys	Asn	Lys 150	Gly	Val	Met	Val	Ala 155	Ile	Asn	Asp	Lys	Ile 160
Leu	Ser	Ala	Arg	Gly 165	Val	Val	Lys	Thr	His 170	Ser	Leu	Asn	Val	Asp 175	Ala
Phe	Ser	Ser	Pro 180	Asp	Phe	Gly	Asp	Leu 185	Gly	Tyr	Ile	Val	Asp 190	Gly	Lys
Val	Phe	Phe 195	Tyr	Asn	Asn	Val	Ile 200	Lys	Ala	His	Thr	Lys 205	Asn	Ala	Pro
Phe	Asp 210	Val	Ser	Lys	Leu	Thr 215	Ser	Leu	Pro	Lys	Val 220	Asp	Ile	Leu	Tyr
Ser 225	Tyr	Ser	Asn	Asp	Gly 230	Ser	Gly	Val	Ala	Ala 235	Lys	Ala	Leu	Phe	Glu 240
His	Gly	Thr	Lys	Gly 245	Ile	Val	Val	Ala	Gly 250	Ser	Gly	Ala	Gly	Ser 255	Ile
His	Lys	Asn	Gln 260	Lys	Asp	Val	Leu	Lys 265	Glu	Leu	Leu	Lys	Lys 270	Gly	Leu
Lys	Val	Val 275	Val	Ser	Ser	Arg	Val 280	Val	Ala	Gly	Суз	Val 285	Ala	Val	Ser
Asp	Ser 290	Asp	Glu	Lys	Leu	Gly 295	Phe	Ile	Ser	Ala	Glu 300	Asp	Leu	Asn	Pro
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325 330

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Gly Ile Lys Asp Gly Val Lys Leu Glu Gly Asp Phe Phe Ala Lys Met 180 185 190

170

Asn Phe Pro Asn Arg Pro Ala Asp Pro Val Arg Gly Lys Lys Leu Phe 200 Glu Glu Asn Cys Val Ala Cys His Gly Glu Arg Gly Leu Gly Val Lys 210 215 220 Asn Asp Asn Tyr Glu Gln Gly Ser Gly His Leu Tyr Pro Ser Leu Leu 225 230 235 240 Ile Tyr Pro Asp Gly Gly His Met Ala Met Ile Pro Phe Leu Ala Arg 245 250 Phe Leu Lys Ser Ala Met Pro Phe Gly Ala Ser Ala Asp Asn Pro Ile 265 260 Leu Ser Asp Glu Asp Ala Leu Asp Ile Ala Ala Tyr Val Asn Thr Gly 275 280 285 Phe Val Arg Met Pro Ile Thr Thr Glu Asn Arg Ala Gly Leu Asp 295 300 290 Thr Ala Tyr Ser Lys Ser Pro Ser Leu Lys Pro Glu Tyr Phe Ala Ser 305 310 315 320 Pro Gln Gln Asn Leu Asp Pro Lys Glu Tyr Ile Lys Val Lys Tyr Gly 325 330 335 Pro Trp Lys Asn Pro Asn His Phe Pro Gly Glu 340 345 <210> 5 <211> 400 <212> PRT <213> Campylobacter jejuni (SEQ ID NO:5 - Cj0093) <400> 5 Met Lys Ile Ile Lys Ile Leu Phe Leu Gly Leu Phe Leu Ser Leu Ser 10 5 Leu Asn Ala Lys Val Ile Thr Thr Thr Ser Thr Lys Ser Ser Thr Gly 20 25 30

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35 40 45

Glu Ala Ile Gly Lys Met Ser Gly Val Ser Ile Asn Ser Leu Lys Lys
50 55 60

Ser Asn Thr Ser Val Ser Thr Asp Asn Ser Gly Ser Asn Ile Gln Asp 65 70 75 80

Asn Tyr Ser Glu Gln Ile Ser Lys Ala Thr Lys Gly Arg Ala Asp Thr
85 90 95

Tyr Glu Ile Asn Ser Val Glu Gln Asp Ala Asn Gly Lys Tyr Thr Ala 100 105 110

Asn Val Thr Ile Phe Lys Thr Thr Thr Thr Lys Lys Tyr Gln Ala Pro 115 120 125

Gly Leu Ser Ala Asp Asn Arg Arg Ser Ile Thr Val Phe Asp Ser Thr 130 135 140

Ile Ser Asp Leu Leu Gln Ser Arg Lys Phe Asn Val Leu Asp Arg Asp \$165\$ \$170\$ \$175\$

Ser Ser Gly Tyr Tyr Glu Met Glu Lys Ala Leu Ile Lys Ser Gly Asp 180 185 190

Ala Ala Ser Asp Glu Val Tyr Lys Leu Lys Asn Met Leu Ala Thr Asp 195 200 205

Tyr Ile Leu Leu Phe Ser Ile Ser Gly Leu Glu Gly Lys Gln Lys Thr 210 215 220

Ser Asn Leu Thr Gly Lys Ser Lys Thr Glu Ile Glu Val Ile Val Asp 225 230 230 235 235

Tyr Arg Val Leu Leu Phe Ala Thr Arg Gln Ile Lys Phe Ser Asn Thr 245 250 255

Leu Ser Met Lys Val Asn Leu Lys Asp Asn Ser Leu Ser Ala Asn Glu 260 265 270

Thr Ala Leu Lys Gln Ile Ala Asn Arg Ile Ala Gly Asp Ile Leu Asn 275 280 285

Ala Ile Tyr Pro Leu Lys Val Ala Ser Val Glu Asn Asn Glu Val Ile 290 295 300

Phe Ser Gln Ser Leu Asn Gln Gly Asp Val Tyr Glu Cys Phe Ala Leu 305 310 315 320

Gly Lys Val Ile Lys Asp Thr Tyr Thr Lys Glu Asn Thr Gly Arg Val
325 330 335

Glu Ser Lys Thr Gly Ser Ile Glu Ile Thr Arg Thr Ser Pro Lys Phe 340 345 350

Ser Tyr Ala Lys Ile Thr Glu Gly Ser Val Lys Val Gly Asp Ile Cys 355 360 365

Arg Pro Leu Ser Asn Thr Gly Ser Gly Asn Gly Tyr Thr Ile Gly Arg 370 375 380

Asp Ala Asn Tyr Gln Thr Gln Glu Gly Gly Gly Val Asn Leu Gly Phe 385 390 395 400

<210> 6

<211> 465

<212> PRT

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Glu Ser Glu Gly Lys Lys His Lys Leu Val Leu Glu Val Ala Ala His $35\,$